

Title (en)

Water-soluble conducting polymer and method for production thereof.

Title (de)

Wasserlösliches leitfähiges Polymer und Verfahren zu seiner Herstellung.

Title (fr)

Polymère conducteur soluble dans l'eau et méthode pour le préparer.

Publication

**EP 0545417 A1 19930609 (EN)**

Application

**EP 92120669 A 19921203**

Priority

- JP 33667292 A 19921124
- JP 34829591 A 19911204

Abstract (en)

Water-soluble conducting polymers having a chemical structure represented by, for example, the formula (I) <CHEM> wherein R<1> and R<2> independently represent H, a C1 to C20 alkyl or alkoxy group, amino group, trihalomethyl group or phenyl group, X represents S, O, Se, Te or NR3, R3 represents H, a C1 to C6 alkyl group or an aryl group, M represents a cation such as H<+>, an alkali metal ion or quaternary ammonium, and m is 0.2 to 2 and a method for the production thereof by the reaction of a sulfonating agent on a derivative of, for example, isothianaphthene or isobenzofuran.

IPC 1-7

**C08G 61/12**

IPC 8 full level

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CPC (source: EP)

**C08G 61/123** (2013.01); **H01B 1/127** (2013.01)

Citation (search report)

- [A] EP 0273643 A2 19880706 - UNIV CALIFORNIA [US]
- [A] EP 0399463 A2 19901128 - SHOWA DENKO KK [JP]
- [A] EP 0164974 A2 19851218 - UNIV CALIFORNIA [US]
- [A] POLYMER BULLETIN vol. 18, 1987, HEIDELBERG DE pages 277 - 281 E.E.HAVINGA ET AL. 'Self-doped water-soluble conducting polymers'

Cited by

US5783251A; CN104428341A; KR100803699B1; EP2207185A1; EP3734626A4; CN114920911A; KR20030027862A; GB2360776A;  
EP1138713A3; WO9428083A1; WO2005091309A1; US7638071B2; US7857999B2

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DE 69228915 T2 19991216; HK 1012647 A1 19990806; JP 3182239 B2 20010703; JP H0649183 A 19940222

DOCDB simple family (application)

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